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LADAS & PARRY
Suite 2100
5670 Wilshire Boulevard
Los Angeles, CA 90036-5679

EXAMINER

SCUDERI, PHILIP S

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,849

Applicant(s)

ECKERT ET AL.

Examiner

Philip S. Scuderi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 1, 14, 20 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 71.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 22a, 23a, 24a, and 39. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

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drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.
4. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.
5. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.
6. The disclosure is objected to because receiver module 19 is incorrectly referenced by the specification, using reference number 20, on page 8 lines 19 and 25, and page 9 lines 24 and 27. Appropriate correction is required.
7. The disclosure is objected to because first combined channel adapter 38 is incorrectly referenced by the specification, using reference number 40, on page 12 lines 10 and 11. Appropriate correction is required.

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8. The disclosure is objected to because second combined adapter 39 is incorrectly referenced by the specification, using reference number 41, on page 12 lines 10 and 16.

Appropriate correction is required.

9. The disclosure is objected to because second browser 41a is incorrectly referenced by the specification, using reference number 42, on page 15 line 27.

Appropriate correction is required.

Claim Objections

10. Claim 1 is objected to because of the following informalities: “A message broker for transmitting message” in line 1. The examiner suggests “A message broker for transmitting a message”. Appropriate correction is required.

11. Claim 14 is objected to because of the following informalities: “the message is permitted to pass the firewall” in lines 2-3. The examiner suggests “the message is permitted to pass through the firewall”. Appropriate correction is required.

12. Claim 23 is objected to because of the following informalities: “retrieval by to a second client system” in line 2. The examiner suggests “for retrieval by a second client system”. Appropriate correction is required.

13. Claim 20 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 20 recites the

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limitation "a message broker according to claim 1 further including at least one client system". Claim 1 already claims two client systems. Accordingly, claim 20 will not be treated on the merits.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 22 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

16. Claim 22 recites the limitation "the information" in line 7. There is insufficient antecedent basis for this limitation in the claim.

17. Claim 24 recites the limitation "the request" in lines 8-9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

19. Claims 12 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Colyer (US 6,023,722).

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20. With respect to claim 12, Colyer discloses a transmission module (fig. 1 #1a) operable to transmit a message from a first client system (Abstract line 3 makes it clear that the web browser of fig. 1 is embodied on a computer client device (first client system).) to a message broker (fig. 1 #31) for receipt by a second client system (fig. 1 #32a), the transmission module being operable to:

- receive message information comprising content information and destination information corresponding to a message channel (col. 5 lines 11-15);
- generate a message comprising the message information encoded in an Internet protocol format (col. 5 lines 13-15); and
- transmit the message to a message broker (col. 6 lines 28-30) for retrieval by the second client system from the message channel (col. 6 lines 30-32).

21. With respect to claim 23, Colyer discloses a method of transmitting a message from a first client system to a message broker for retrieval by a second client system comprising the steps of:

- receiving message information comprising destination information corresponding to a message channel and content information (col. 5 lines 11-15);
- generating a message comprising the content information and destination information encoded in an Internet protocol format (col. 5 lines 11-15); and
- transmitting said message (col. 5 lines 11-13) to a message broker (fig. 1 #31).

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 1, 2, 4, 6, 9, 10, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Sheard et al. (US 6,453,356, hereinafter "Sheard"), and further in view of *MQSeries Clients* (International Business Machines Corporation, 4th edition, 6/1996).

24. With respect to claim 1, Colyer discloses a message broker (fig. 1 #31) for transmitting a message from a first client system (fig. 1 #1) to a second client system (fig. 1 # 32), the message broker comprising at least one message channel (queue disclosed in col. 6 lines 28-30), the message broker being operable to;

- receive a message from the first client system encoded in an Internet protocol (col. 6 lines 27-28) and comprising content information and destination information (col. 6 lines 26-27),
- send a push request to place the message in a message channel (col. 6 lines 28-30),
- receive a message request from the second client system (col. 6 lines 32-35) encoded in an Internet protocol (As discussed in col. 5 lines 28-30, servers 32a-n (second client systems) can be web servers. Web servers communicate using an Internet protocol.),
- read the message request (The message broker inherently reads the message request disclosed in col. 6 lines 32-35 because in col. 6 lines 36-39 the message broker responds to the message request.),

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- send a pull request to the message channel (col. 6 lines 36-39, The message is pulled from the queue.), and
- generate a response accordingly (col. 6 lines 36-39).

Colyer does not disclose a first channel adapter operable to receive the message from the first client system. Nonetheless, a message broker comprising a first channel adapter operable to receive a message from a first client system was well known, as evidenced by Sheard. In a similar art, Sheard discloses a message broker (fig. 1 #32, 34) comprising a first channel adapter (fig. 1 #34A) operable to receive a message (fig. 1 “Info A”) from a first client system (fig. 1 “Application #1”). Given the teachings of Sheard it would have been obvious to one of ordinary skill in the art to provide a first channel adapter operable to receive the message from the first client system. The motivation for doing so would have been to provide the capability to exchange data of different format between dissimilar systems (col. 2 lines 22-24). Colyer does not disclose reading the destination information from the message, and sending the push request to place the message in the message channel corresponding to the destination information. Nonetheless, a message broker that reads destination information from a message and sends a push request to place the message in a message channel corresponding to destination information is well known, as evidenced by Sheard. Sheard further discloses reading destination information from a message and sending a push request to place the message in a message channel corresponding to destination information (col. 10 lines 54-56). Given the further teachings of Sheard it would have been obvious to one of ordinary skill in the art to read the destination information from the message, and send the push request to place the message in a message channel corresponding to the destination information. The

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motivation for doing so would have been so that the message is delivered to the correct message channel because, as disclosed by Sheard in fig. 8, message brokers may comprise multiple message channels. Colyer does not disclose a second channel adapter operable to receive the message from the second client system, read the message request, send the pull request, and generate the response. Nonetheless, a message broker comprising a second channel adapter for providing the interface between a message channel and a second client system is well known, as evidenced by Sheard. Sheard further discloses a second channel adapter (fig. 1 #34B) operable to provide an interface between (see figure 1) the message channel and a second client system (fig. 1 “Application #2”). Given the further teachings of Sheard it would have been obvious to one of ordinary skill in the art to provide a second channel adapter operable to receive the message from the second client system, read the message request, send the pull request, and generate the response. The motivation for doing so would have been to provide the capability to exchange data of different format between dissimilar systems (col. 2 lines 22-24). Colyer does not expressly disclose that the message request comprises source information identifying a message channel corresponding to the source information. Colyer discloses that commercially available products such as IBM MQSeries may have been used to implement Messaging and Queuing Unit 31 (col. 5 line 66 – col. 6 line 24). It was well known that IBM MQSeries message requests comprise source information identifying a message channel, as evidenced by MQSeries Clients. MQSeries Clients discloses a client (figure on p. 85 “MQSeries Client”) sending a message request comprising source information (p. 85 “The application requires a connection to a specific queue manager, with the name of SALE”).

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25. With respect to claim 2, Coyler in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 1. Coyler does not expressly disclose generating a response comprising a time out response if no message is placed in the channel within a predetermined time period. The Examiner takes Official Notice that it was well known in the art that some web browsers, upon making a pull request, generate a time out response if no message is received within a predetermined time period. Given this information it would have been obvious to one of ordinary skill in the art to generate a response comprising a time out response if no message is placed in the channel within a predetermined time period. The motivation for doing so would have been so that a user is notified of the fact that no messages are in the channel and thus would not wait for a response for an extended period of time.

26. With respect to claim 4, Coyler in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 1. The response sent to a server unit in response to having received a request from the server unit as discussed in col. 6 lines 36-39 is encoded in an Internet protocol format because, as detailed in figure 1, the server unit 32 is a web server.

27. With respect to claim 6, Coyler in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 1. MQSeries Clients further discloses an address information store wherein channel information corresponding to the source information is stored (p. 85 MQSeries will search the client channel definition table (address information store), in channel name order, looking in the queue manager field, for a SALE entry.).

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28. With respect to claim 9, Coyler in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 1. Coyler further discloses that the message is encoded in HTTP format (col. 2 lines 4-7 and 11-12). Web servers were known to communicate using the HTTP format. It would have therefore been obvious to adapt the web server making the request to encode the request in HTTP format. The motivation for doing so would have been so that the web server could communicate in its native format.

29. With respect to claim 10, Coyler in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 9. The instant teachings disclose that the message and the request are encoded in HTTP format, but do not disclose that the message comprises a HTTP POST request. Nonetheless, it would have been obvious to one of ordinary skill in the art to adapt the message to comprise a HTTP POST request. The motivation for doing so would have been so that the request string is not visible to the user.

30. With respect to claim 21, Coyler in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 1. Colyer further discloses that the message broker and at least one client system are connected via the Internet (fig. 1 shows the message broker 31 connected to at least one client system 1a via the Internet 2.).

31. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Sheard, further in view of MQSeries Clients, and further in view of Rothschild et al. (US 5,822,523, hereinafter "Rothschild").

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32. With respect to claim 3, Colyer in view of Sheard teaches the message broker applied to claim 1. Colyer further discloses generating the response comprising at least the content information (col. 6 lines 36-39, The client request is the content information.). The instant teachings use a pull-model. Claim 3 claims that the second channel adapter is operable to generate the response comprising at least the content information when a message is placed in the channel. Nonetheless, a message broker generating a response when a message is placed in a message channel is well known, as evidenced by Rothschild. In a similar art, Rothschild discloses a message broker generating a response when a message is placed in a message channel (col. 23 lines 9-13). Given the teachings of Rothschild it would have been obvious to one of ordinary skill in the art to generate the response comprising at least the content information when a message is placed in the channel. The motivation for doing so would have been so that the second client system could receive messages at a fixed rate (Rothschild col. 23 lines 34-37).

33. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Sheard, further in view of MQSeries Clients, and further in view of *JavaTM Servlet API* (8/16/2000, URL: “<http://web.archive.org/web/20000816001008/http://www.java.sun.com/products/servlet/>”, hereinafter “Servlet API”).

34. With respect to claim 5, Colyer in view of Sheard, further in view of MQSeries Clients teach the message broker applied to claim 1. The message broker applied to claim 1 does not expressly teach the first channel adapter and the second channel adapter each implemented by a servlet. Nonetheless, it would have been obvious to one of ordinary

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skill in the art to implement the first and second channel adapters by a servlet. The motivation for doing so would have been to provide a simple and consistent mechanism for handling messages and requests (Servlet API p. 1 “The Java™ Servlet API provides developers with a simple, consistent mechanism for extending the functionality of a web server and for accessing existing business systems.”).

35. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Sheard, further in view of MQSeries Clients, and further in view of *MQSeries: An Introduction to Messaging and Queuing* (International Business Machines Corporation, 2nd edition, 5/1995, hereinafter “MQSeries Introduction”).

36. With respect to claim 7, Colyer in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 1. The instant teachings do not expressly disclose a bi-directional communication link having two message channels, each channel comprising a first channel adapter and a second channel adapter, such that the message broker is operable to transmit messages from the first client to the second client system using one of the channels and from the second client system to the first client system using the other of said channels. Colyer discloses that commercially available products such as IBM MQSeries may have been used to implement Messaging and Queuing Unit 31 (col. 5 line 66 – col. 6 line 24). MQSeries Introduction discloses that IBM MQSeries may comprise a bi-directional communication link (see fig. 2) having two message channels (fig. 2 queues 1 and 2) such that the message broker is operable to transmit messages from the first client (fig. 2 “A”) to the second client system (fig. 2 “B”) using one of the channels (fig. 2 “Queue 1”) and from the second client system to

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the first client system using the other of said channels (fig. 2 "Queue 2"). As discussed in the rejection of claim 1, it would have been obvious to one of ordinary skill in the art to provide channels with first and second channel adapters. The motivation for doing so would have been to provide the capability to exchange data of different format between dissimilar systems (Sheard col. 2 lines 22-24).

37. With respect to claim 8, Coyler in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 7. Sheard further discloses a common channel adapter module (fig. 2 #120). Given the further teachings of Sheard it would have been obvious to one of ordinary skill in the art to provide a common channel adapter module wherein the first channel adapter of one of the channels and the second channel adapter of the other of the channels are provided by a common combined channel adapter module. The motivation for doing so would have been to simplify the task of interfacing numerous disparate applications (Sheard col. 7 lines 17-19).

38. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Sheard, further in view of MQSeries Clients, and further in view of *Performance differences in post vs. get method* (7/16/1999, URL: <http://help.netscape.com/kb/consumer/19990715-1.html>, hereinafter "Netscape").

39. With respect to claim 11, Coyler in view of Sheard, and further in view of MQSeries Clients teaches the message broker applied to claim 9. The instant teachings disclose that the message and the request are encoded in HTTP format, but do not disclose that the message comprises a HTTP GET request. Nonetheless, it would have been obvious to one of ordinary skill in the art to adapt the message to comprise a HTTP

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GET request. The motivation for doing so would have been because the processing time associated with a GET request is faster than a HTTP POST request (Netscape “the processing time with a GET request is based on the time it takes to get the page that was requested. With the POST method you have data processing and response time, which means that GET could be faster.”).

40. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer.

41. With respect to claim 13, Coyler discloses the transmission module applied to claim 12. Coyler further discloses that the message is encoded in an HTTP format (col. 2 lines 4-7 and 11-12). It would have been obvious to one of ordinary skill in the art to adapt the message to comprise a HTTP POST request. The motivation for doing so would have been so that the request string is not visible to the user.

42. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Clark et al. (US 6,073,163).

43. With respect to claim 14, Coyler discloses the transmission module applied to claim 12. Coyler does not expressly disclose that the client system has a firewall, wherein the message is permitted to pass the firewall. Nonetheless, providing a firewall and enabling HTTP to pass through the firewall was well known in the art at the time of invention. It would have been obvious to provide a firewall so that the client is protected from potential threats to his/her system. It was also well known in the art to use HTTP to communicate through firewalls because most firewalls would not permit arbitrary socket

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access (Clark col. 12 lines 4-7). Therefore, it would have also been obvious to one of ordinary skill in the art to enable HTTP data to pass through the firewall.

44. Claims 15, 17, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of MQSeries Clients.

45. With respect to claim 15, Colyer discloses a second client system (fig. 1 #32a) operable to retrieve a message comprising content information (col. 6 lines 45-46) from a message broker (fig. 1 #31) sent by a first client system (fig. 1 #1a), the second client system operable to:

- generate a message request (col. 6 lines 32-35) encoded in an Internet protocol format (As discussed in col. 5 lines 28-30, servers 32a-n (second client systems) can be web servers. Web servers communicate using an Internet protocol.);
- transmit the message request to the message broker (col. 6 lines 32-35);
- receive a response from said message broker in accordance with the message request (col. 6 lines 36-39); and
- generate an output (col. 6 lines 48-51).

Colyer does not expressly disclose that the second client system comprises a receiving module that is operable to perform the above functions, receive a message request comprising source information corresponding to a message channel, and generate the message request in accordance with the source information. Nonetheless, a client system comprising such a receiver module was well known, as evidenced by MQSeries Clients. In a similar art, MQSeries Clients discloses a receiver module for a connecting to a message broker (figure on p. 85 “MQSeries Client”) and operable to receive a message

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request comprising source information corresponding to a message channel (“MQCONN(SALE)” call), and generate the message request in accordance with the source information (The figure on p. 85 shows the MQSeries Client calling the MQCONN(SALE) function on Server 1. The MQSeries Client must have generated the message request to send it to Server 1.). Given the teachings of MQSeries Clients it would have been obvious to one of ordinary skill in the art to provide a receiver module for performing the functions of the second client system, receive a message request comprising source information corresponding to a message channel, and generate the message request in accordance with the source information. The motivation for doing so would have been because Colyer specifically mentions that IBM MQSeries may have been used to implement Messaging and Queuing Unit 31 (Colyer col. 5 line 66 – col. 6 line 25).

46. With respect to claim 17, Colyer in view of MQSeries Clients teaches the receiver module applied to claim 15. Colyer further discloses that the response comprises a message (col. 6 lines 48-51), and that the second client is operable to generate an output comprising the content information (col. 6 lines 48-51).

47. With respect to claim 22, Colyer discloses a method of transmitting messages from a first client system (fig. 1 #1a) to a second client system (fig. 1 #32a) comprising the steps of:

- receiving a message from the first client system encoded in an Internet protocol format (col. 6 lines 26-28) and comprising content information and destination (col. 6 lines 26-27) information corresponding to a message channel (col. 6 lines 28-30);
- reading the destination information (col. 6 lines 28-30);

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- sending a push request to place the information in a message channel corresponding to the destination information (col. 6 lines 28-30), receiving a message request from the second client system (col. 6 lines 32-35);
- sending a pull request to the message channel (col. 6 lines 36-39); and
- generating a response accordingly (col. 6 lines 48-51).

Colyer does not disclose that the message request from the second client system comprises source information corresponding to the message channel or reading the message request to identify the message channel corresponding to the source information. Nonetheless, receiving a message request from a second client system comprising source information corresponding to the message channel and reading the message request to identify a message channel corresponding to the source information was well known, as evidenced by MQSeries Clients. In a similar art, MQSeries Clients discloses receiving a message request (figure on p. 85 “MQCONN(SALE) call from MQI client”) from a second client system (figure on p. 85 “MQSeries client”) comprising source information corresponding to the message channel (figure on p. 85 “SALE”) and reading the message request to identify a message channel corresponding to the source information (p. 85 “MQSeries will search the client channel definition table, in channel name order, looking in the queue manager field for a SALE entry”). Given the teachings of MQSeries Clients it would have been obvious to one of ordinary skill in the art to adapt the message request from the second client system to comprise source information corresponding to the message channel and read the message request to identify the message channel corresponding to the source information. The motivation for doing so would have been because Colyer specifically mentions that IBM MQSeries may have been used to

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implement Messaging and Queuing Unit 31 (Colyer col. 5 line 66 – col. 6 line 25).

MQSeries Clients further discloses that the message request is encoded in an Internet protocol. The figure on p. 85 shows an MQSeries client making calls to two different servers, each having IP addresses. Clearly these message requests must be in an Internet protocol in order to identify the servers as shown in the figure.

48. With respect to claim 24, Colyer discloses a method of monitoring a message broker (fig. 1 #31) for a received message for a second client system (fig. 1 #32a) from a first client system (fig. 1 #1a) comprising the steps of:

- generating a message request (col. 6 lines 32-35) encoded in an Internet protocol format (As discussed in col. 5 lines 28-30, servers 32a-n (second client systems) can be web servers. Web servers communicate using an Internet protocol.)
- transmitting said message request (col. 6 lines 32-35);
- receiving a response from the message broker in accordance with the request (col. 6 lines 36-39); and
- generating an output in accordance with the response (col. 6 lines 48-51).

Colyer does not expressly disclose receiving a request comprising source information corresponding to a message channel and generating the message request in accordance with the source information. Nonetheless, a client system that receives a request comprising source information corresponding to a message channel and generates a message request in accordance with the source information was well known, as evidenced by MQSeries Clients. In a similar art, MQSeries Clients discloses a client system (figure on p. 85 “MQSeries Client”) that receives a request comprising source information corresponding to a message channel (figure on p. 85 “MQCONN(SALE)”).

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call) and generates a message request in accordance with the source information (The figure on p. 85 shows the message request being sent to Server 1 ("MQCONN(SALE) (call from MQI client)").). Given the teachings of MQSeries Clients it would have been obvious to one of ordinary skill in the art to receive a request comprising source information corresponding to a message channel and generate the message request in accordance with the source information. The motivation for doing so would have been because Colyer specifically mentions that IBM MQSeries may have been used to implement Messaging and Queuing Unit 31 (Colyer col. 5 line 66 – col. 6 line 25).

49. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of MQSeries Clients, and further in view of Sridhar et al. (US 6,266,701, hereinafter "Sridhar").

50. With respect to claim 16, Colyer in view of MQSeries Clients teaches the receiver module applied to claim 15. The instant invention does not teach the response comprising a time out response and the receiver module being operable to generate an output comprising re-transmitting the message request to the message broker. Nonetheless, a response comprising a time out response and a receiver module operable to generate an output comprising re-transmitting a message request was well known, as evidenced by Sridhar. In a similar art, Sridhar discloses a response comprising a time out response and a receiver module operable to generate an output comprising re-transmitting a message request (col. 11 lines 38-41). Given the teachings of Sridhar it would have been obvious to one of ordinary skill in the art to adapt the message broker to send a time out response and adapt the receiver module to re-transmit the message request upon receiving the time

out response. The motivation for doing so would have been to provide a means for allowing the receiver module to actively monitor the channel for messages.

51. Claims 18 and 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of MQSeries Clients, and further in view of Clark.

52. With respect to claim 18, Colyer in view of MQSeries Clients teaches the receiver module applied to claim 15. The instant teachings do not disclose the receiver module having a firewall, wherein the message request and response are permitted to pass the firewall. Nonetheless, providing a firewall and enabling HTTP to pass through the firewall was well known. It would have been obvious to provide a firewall so tha the client is protected from potential threats to his/her system. It was also well known in the art to use HTTP to communicate through firewalls because most firewalls would not permit arbitrary socket access (Clark col. 12 lines 4-7). Therefore, it would have also been obvious to one of ordinary skill in the art to enable HTTP data to pass through the firewall.

53. With respect to claim 19, Colyer in view of MQSeries Clients teaches the receiver module applied to claim 18. The instant teachings disclose that the message request and response are encoded in HTTP format and allowed to pass through the firewall, but do not disclose that the message request comprises a HTTP GET request. Nonetheless, it would have been obvious to one of ordinary skill in the art to adapt the message request to comprise a HTTP GET request. The motivation for doing so would have been because the processing time associated with a GET request is faster than a HTTP POST request (Netscape “the processing time with a GET request is based on the time it takes to get the

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page that was requested. With the POST method you have data processing and response time, which means that GET could be faster.”).

Conclusion

54. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Todd (U.S. 6,510,429);
- Alberti et al. (U.S. Pub. 2002/0087485);
- Walsh et al. (U.S. 6,810,429);
- Chesley (U.S. 6,708,201);
- Leymann et al. (U.S. 6,487,548);
- Chang et al. (U.S. 6,226,666);
- Hoglund et al. (U.S. Pub. 2002/0026513);
- Mikalsen et al. (U.S. 6,832,243);
- Page et al. (U.S. 5,329,619);
- Bracho et al. (U.S. 5,870,605);
- Beaven et al. (U.S. 6,493,714);
- Taylor et al. (U.S. 6,256,676);
- Todd et al. (U.S. 6,643,682);
- Stumm (U.S. 5,768,528);
- Bayeh et al. (U.S. 6,012,098);
- Black et al. (U.S. 5,878,056);
- Hickson et al. (U.S. 6,094,694);

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- Niblett et al. (U.S. 6,336,135);
- Chen et al. (U.S. Pub. 2002/0116435);
- Synder et al. (U.S. 5,151,900);
- Dievendorff et al. (U.S. 5,465,328);
- Bird et al. (EP 1043671 A2);
- Bird et al. (GB 2348025 A);
- Enterprise Application Integration, by David S. Linthicum, published November 05, 1999 by Addison Wesley, Chapter 18;
- Messaging Middleware - Selecting A Message Broker, by David S. Linthicum, 07/30/1999, URL:
“http://www.ebizq.net/topics/messaging_middleware/features/1590.html”; and
- Building Distributed Applications with Message Queuing Middleware, by Peter Houston, copyright 1998, URL:
“<http://www.microsoft.com/ntserver/docs/MSMQDistributed.doc>”.


55. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip S. Scuderi whose telephone number is (571) 272-5865. The examiner can normally be reached on Monday-Friday 8am-5pm.

56. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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57. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PSS



GLENON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100